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Mitsubishi Tanabe Pharma Corporation

<120> Rotavirus-like Particle Production in Plants

<130> V84653WO

<150> US 61/646,058
<151> 2012-05-11

<160> 59

<170> PatentIn version 3.5

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<213> Nicotiana tabacum

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Glu Glu Ile Val Thr Asp Ser His Glu Glu Val Lys Val Thr Asp Glu
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Leu Lys Lys Ser Thr Lys Glu Glu Ser Lys Gln Leu Leu Glu Val Leu
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Lys Thr Lys Glu Glu His Gln Lys Glu Ile Gln Tyr Glu Ile Leu Gln
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Lys Thr Ile Pro Thr Phe Glu Pro Lys Glu Thr Ile Leu Arg Lys Leu
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Glu Asp Ile Gln Pro Glu Leu Ala Lys Lys Gln Thr Lys Leu Phe Arg
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Asp Gly Asp Tyr Asp Val Arg Glu Tyr Phe Leu Asn Leu Tyr Asp Gln
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Val Leu Thr Glu Met Pro Asp Tyr Leu Leu Leu Lys Asp Met Ala Val

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Ala Ser Ile Cys Asp Ala Ile Phe Gln Asp Glu Glu Thr Glu Gly Ala
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Asn Tyr Val Glu Thr Ala Arg Asn Thr Ile Asp Tyr Phe Val Asp Phe
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Val Asp Asn Val Cys Met Asp Glu Met Val Arg Glu Ser Gln Arg Asn
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Gln Ile Ile Asn Thr Tyr Gln Ala Arg Phe Gly Thr Ile Val Ala Arg
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 Thr Ser Glu Lys Leu Val Ile Thr Asp Val Val Asp Gly Val Asn His
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pctca2013050364-seq1.txt

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770

775

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<400> 31

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Leu Leu Gly Thr Thr Leu Leu Asn Leu Asp Ala Asn Tyr Val Glu Asn
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Ala Arg Thr Ile Ile Glu Tyr Phe Ile Asp Phe Ile Asp Asn Val Cys
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145 150 155 160

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Met Gly Thr Met Trp Leu Asn Ala Gly Ser Glu Ile Gln Val Ala Gly
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Phe Asp Tyr Ser Cys Ala Ile Asn Ala Pro Ala Asn Ile Gln Gln Phe
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Tyr Gln Ala Arg Phe Gly Thr Ile Ile Ala Arg Asn Phe Asp Ala Ile
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Asn Ala Leu Phe Pro Gln Ala Gln Pro Phe Gln His His Ala Thr Val
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Gly Leu Thr Leu Arg Ile Glu Ser Ala Val Cys Glu Ser Val Leu Ala
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<213> Artificial sequence

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 <211> 1194
 <212> DNA
 <213> Rotavirus

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 <211> 2328
 <212> DNA
 <213> Artificial sequence

<220>
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 RVA/Vaccine/USA/Rotarix-A41CB052A/1988/G1P1A[8]

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 <211> 981
 <212> DNA
 <213> Rotavirus

<400> 48						
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 <212> DNA
 <213> Rotavirus

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tag	903

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 <212> DNA
 <213> Rotavirus

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<211> 2331
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Optimized coding sequence of Rotavirus A VP4 from strain
 RVA/Simian-tc/ZAF/SA11-H96/1958/G3P5B[2]

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<210> 52
 <211> 981
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Coding sequence of Rotavirus A VP7 from strain
 RVA/Simian-tc/ZAF/SA11-H96/1958/G3P5B[2]

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aacgaatggg tgtgtaatcc aatggatatt actctgtatt attatcagca aactgacgaa	540
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acagaacgga tgatgcgaat taactggaaa aaatgggtggc aagtttttta tactgtagta	900
gactatgtag atcagataat acaagttatg tccaaaagat caagatcact aaattcagca	960
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<210> 53
 <211> 981
 <212> DNA

<213> Rotavirus

<400> 53

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<211> 981

<212> DNA

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<400> 54

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<210> 57
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<212> DNA
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<220>
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 <212> DNA
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<220>
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Thr Ser Thr Leu Cys Leu Tyr Tyr Pro Thr Glu Ala Ser Thr Gln Ile
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Leu Ile Leu Asn Glu Trp Leu Cys Asn Pro Met Asp Ile Thr Leu Tyr
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Tyr Tyr Gln Gln Ser Gly Glu Ser Asn Lys Trp Ile Ser Met Gly Ser
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Ser Cys Thr Val Lys Val Cys Pro Leu Asn Thr Gln Met Leu Gly Ile
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Gly Cys Gln Thr Thr Asn Val Asp Ser Phe Glu Met Val Ala Glu Asn
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Glu Lys Leu Ala Ile Val Asp Val Val Asp Gly Ile Asn His Lys Ile
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Asn Leu Thr Thr Thr Thr Cys Thr Ile Arg Asn Cys Lys Lys Leu Gly
210 215 220

Pro Arg Glu Asn Val Ala Val Ile Gln Val Gly Gly Ser Asn Val Leu
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Asp Ile Thr Ala Asp Pro Thr Thr Asn Pro Gln Thr Glu Arg Met Met
245 250 255

Arg Val Asn Trp Lys Lys Trp Trp Gln Val Phe Tyr Thr Ile Val Asp
260 265 270

Tyr Ile Asn Gln Ile Val Gln Val Met Ser Lys Arg Ser Arg Ser Leu
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Asn Ser Ala Ala Phe Tyr Tyr Arg Val
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